F. H.—Unimportant.
P. H.—No similar previous attacks—no severe infections, except malaria one month ago.
P. I.—Repeated nasal hemorrhage during past three days.
P. Ex.—Nasal mucosa red—oozing over both turbinates—not remarkable otherwise.
Jan. 13th.—10 cc. horse serum (anti-pneumonic).
Jan. 14th.—No change—nares plugged with iodoform gauze.
Jan. 15th.—No further hemorrhage.

Case 5. A. M.; admitted April 4, 1912, complaining of nose bleed.
F. H.—No known bleeders.
P. H.—On several occasions protracted bleeding from slight wounds.
P. I.—Epistaxis five days' duration at intervals.
P. Ex.—Not remarkable except for rather rapid capillary ooze from right nostril.
April 4th.—Nares plugged.
April 15th.—10 cc. horse serum (anti-pneumonic).
April 6th.—Still some bleeding—10 cc. horse serum.
April 10th.—No further hemorrhages.

Case 6. A. K., new born babe. Born at the hospital Aug. 10, 1912. Third day marked jaundice without fever accompanied by purpuric spots and bloody bowel discharges.
F. H.—Negative.
Aug. 14th.—5 cc. horse serum subcutaneously.
Aug. 15th.—No improvement—5 cc. human blood subcutaneously.
Aug. 16th.—10 cc. human blood subcutaneously. No improvement. It was impossible to obtain consent of the father to perform transfusion. Baby died.

Case 7. H. O., aet 14; admitted June 10, 1913; typhoid fever.
F. H.—No bleeders.
P. H.—Not remarkable.
P. I.—One week's duration, ordinary course.
June 24th.—Moderately large intestinal hemorrhages. Hemorrhages at intervals for the following five days in spite of calcium by mouth. Bleeding rather slow. Pulse rose from 80 to 120 during the five days. Ten cc. freshly obtained human blood given subcutaneously. Slight staining of bowel movement three hours later; after which no bleeding. Patient recovered.

Case 8. M. H., aet 30; admitted June 25, 1913; typhoid fever.
F. H.—Not important.
P. H.—Not important.
During third week of disease 12 hemorrhages averaging about 100 cc. each, during the course of six days. On the sixth day 5 cc. horse serum subcutaneously. No further hemorrhages Patient recovered.

In six of the eight cases quite definite improvement followed the exhibition of serum or in one instance of fresh human blood. Case No. 4 presented no definite blood dyscrasia and the serum was used merely tentatively. Mechanical means proved quite effective in this case which was not properly an example of a "medical hemorrhage."

Case No. 6 was not benefited by horse serum or fresh human blood and possibly represents an example of lack of fibrinogen. A direct transfusion of blood from the father (had it been obtainable) might have been of benefit.

It seems quite impractical to group together cases of such varied pathology and having but one symptom in common. However, this symptom is frequently so distressing and prompt relief so necessary that any means available for its relief are gladly used. Whether the results observed in this little group of eight cases which represent our "medical hemorrhage" experience during the past three years, are merely coincidences; or may properly be explained by some of the theoretical considerations mentioned above, I am not prepared to say. I have, however, submitted them for the consideration and criticism of other members of this Society.

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TREATMENT OF URINARY TUBERCULOSIS, TUBERCULIN AND NEPHRECTOMY.*

By DRS. LEGUEU and CHEVASSU.
Translated by LEON JOSEPH ROTH, M. D.

INTRODUCTION.

Among the problems raised by the therapy of local tuberculoses, there are none so difficult as those concerning the treatment of bacillary infection of the urinary tract. Since the time when it was recognized that urinary tuberculosis is always, or nearly always, of renal origin, surgery was the means of solving the question, by ablation of the pathological kidney in all cases when this suppression was possible. The dogma of precocious nephrectomy in renal tuberculosis, originated by Prof. Albarran of Necker Hospital, Paris, progressively converted the medical world, so that at present this surgical procedure is universally followed. However, there is no doubt that this very radical method of suppression of so useful an organ as a kidney has raised certain objections, in as much as this suppression is directed towards a pathological condition which in other parts of the organism are susceptible of healing without surgical intervention.

It is possible to conceive that a certain reaction has occurred in the medical world, so that now the surgeon has difficulty in deciding to sacrifice a kidney, upon which the tubercule bacilli has produced only discrete lesions, because all hope has not been lost, that such lesions might be cured by a purely medical treatment.

For the past ten years, the advocates of both methods have been prominent in their discussions, and in the accumulation of observations and statistics, and a settlement of this medico-surgical difference of opinion is in imminence of being settled.

Physicians and surgeons have realized their therapeutic conceptions, and have made known the results obtained. They are no longer theoretic. There remains only to judge the facts.

RESULTS OF SURGICAL TREATMENT.

Nephrectomy is not a dangerous operation. This can be proven by the accumulated statistics of a

* Read before the Seventh International Congress of Tuberculosis, Rome, 1912.

large number of surgeons. Of 1539 nephrectomized patients for renal tuberculosis, 92 operative deaths occurred, or 5.9%. These statistics are not all in detail, because many of the patients were not kept under surveillance for long enough time. To study more closely the results of nephrectomy, as much from the point of view of the deaths as of the recoveries, 708 cases will be considered, with results as follows:

557 living 78.7%
151 dead 21.3%

A study of cases in which death occurred.

It is very difficult to separate the "late deaths" from the "operative," consequently all cases dead within the month of operation will be considered as "operative." Of 151 deaths—

43 operative deaths,
108 late deaths.

(a) Of the 43 operative deaths, the cause of 30 is as follows: Twelve due to insufficiency of the conserved kidney. The remaining 18 are as follows:

Cachexia	3
Hemorrhage	2
Infection	2
Pulmonary T. B	1
Tetanus	1
Generalized T. B	2
Intestinal gangrene	2
Cardiac insufficiency	2
Tubercular meningitis	1
Gastric hemorrhage	1
Acute gastric dilatation	1

(c) Of the 108 late deaths, 91 are explained. Seventy-five were due to the following tuberculoses:

Pulmonary T. B	28
Tubercular meningitis	11
Non specified T. B	6
T. B. of conserved kidney	17
Generalized T. B	11
Tubercular peritonitis	2

The other 16 cases are disposed as follows:

Nephritis or uremia	4
Infections	2
Cachexia	9
Salpingitis	1

Of the 108 late deaths, the greatest number were within the first year following operation:

1st year	68
2nd year	9
3rd year	8
4th year	8
5th year	6
6th year	2
7th year	4
8th year	2
9th year	1

It is evident that after the first year the operated runs but little risk.

(b) Study of cases in which recovery occurred: The 557 survivors, followed after their nephrectomy may be classed as follows:

291 complete recoveries.....41.2%
58 non specified recoveries..... 8.2%
185 incomplete recoveries.....26.2%
23 mediocre results..... 3.2%

1. Mediocre results (23 cases) composed of patients who presented grave pulmonary T. B. (5 cases), or a manifested T. B. of the conserved kidney (9 cases), or those who remained feeble after the operation, without appreciable amelioration: all destined to early decease.

2. Incomplete recovery (185 cases).

These nephrectomized retained their good general condition, but conserved urinary troubles, i. e., frequent and painful mictions, or at least infected urine. The incomplete recovery apparently due to the persistence of vesical tuberculosis.

The future of these incompletely cured patients is difficult to predict. In time many will have amelioration of their vesical troubles. Others will probably develop tuberculosis of the remaining kidney.

These cases survived:

Less than one year	23 cases
More than 1 yr. (1 to 12 yrs.)	132 cases
Indefinite	30 cases

The number of these incomplete recoveries diminish with time, a certain number, however, survive seven or eight years and over. One case, ten years after operation still has infected urine, while another presents an abundant albuminuria, in a clear urine.

3. Complete recovery (291).

The complete recoveries are those in which the condition of the urine could be verified. In many of the subjects the clear urine was considered as sufficient proof. But in a large number, inoculations were made, and cystoscopic examinations showed normal bladders. All maintain good general conditions, and a few have a slight frequency of mictions.

The duration of recovery of these cases is as follows:

Less than 1 year	22 cases
More than 1 yr. (1 to 14 yrs.)	269 cases

4. Recoveries (58 cases).

In this special category are arranged a certain number of operated, considered as cured, but nothing is known of the condition of the urine, or the character of the mictions.

The duration of their cure follows:

Less than 1 year.....in 10 operated
More than 1 year (1 to 12 yrs.).....in 48 operated

Resumé. Definitely, the 708 nephrectomies give

173 bad results.....24.5%
534 good results.....75.5%

The bad results comprise—

43 operated deaths..... 6.1%
108 late deaths.....15.2%
23 survivors in grave condition.. 3.2%

The good results comprise—

18 incomplete recoveries.....26.2%
58 recoveries 8.2%
291 complete recoveries.....41.2%

It may be said here, that following nephrectomy for renal tuberculosis, one-quarter of the operated die in from 0 to 10 years following the operation.

One-quarter of the operated are but incompletely cured.

One-half completely cured.

RESULTS OF MEDICAL TREATMENT.

All the modes of medical treatment of renal tuberculosis are without doubt far from having great value, and the following statistics include facts that lack conformity; 738 cases are considered, as against the 708 treated sugically.

Of these 738 cases treated radically

456 have died.....61.9%
282 are living.....38.2%

A study of the 456 fatal cases.

Considering the date of decease, they are divided thus:

Date not specified.....124
From 1½ to 20 yrs. (without other detail) 48
Exact date known.....284

Of these 284 cases, death occurred

During the 1st two years.....144
From 3 to 5 yrs.....105
From 5 to 10 yrs..... 24
Over 10 yrs..... 9

All of these afflicted, save two, died of renal tuberculosis, or of an intercurrent tubercular complication.

A study of these cases show that many die within two years; a less number survive only five years, and but few live longer, to eventually die of some form of tuberculosis.

A study of 282 living cases.

The duration of life to date is as follows:

From 1 to 5 yrs.....169
From 5 to 10 yrs..... 40
Over 10 yrs..... 22
Not specified..... 51

The condition of these survivors is considered in 178 cases.

142 retain their renal tuberculosis plus continuous evolution;
36 are to all intents free from infection.

Of these apparently cured cases (36)—

32 are without local manifestations;
2 show urinary infection;
1 shows albuminuria;
1 completely cured.

This last case had been treated by tuberculin.

Among the patients medically treated there are doubtless some for whom a surgical treatment would not have been justifiable, and exact comparison with the nephrectomized is impossible.

If certain renal tuberculoses medically treated are of slow evolution the recoveries obtained by this method are infinitely exceptional. Also are very exceptional, the spontaneous recovery of these cases.

RESULTS OF THE TUBERCULIN TREATMENT.

To correctly judge the results of this treatment it is impossible to depend upon general total statistics; many authors publish only those cases that are to them interesting, and acknowledge that they do not report all cases treated by them.

We have united 184 cases, all treated by tuberculin; but the treatments have been mixed, i. e., tuberculin of Koch, Boraneck, filtered bouillon of Denys, Marmorek's serum, immunizing bodies of Spengler. Further these patients have been subjected to general anti-tubercular treatment.

These 184 cases are disposed thus:

Dead 18
Stationary 24
Improved 91
Cured 51

And from them the following conclusions are drawn:

1. Under the influence of the tuberculin treatment many of the patients are ameliorated; this amelioration is manifested by gain in weight and general improvement. It is likewise manifested by a diminution in the number of mictions and a lessening of the pain; and a clearing of the urine. These modifications may be due to co-existent vesical treatment, also it is not less true that improvement may be noted when there has been no vesical treatment instituted.

2. Many patients remain improved during a greater or less time, and then recommence their symptoms; 16 of the 184 cases were ultimately nephrectomized.

3. An examination of these organs, evidence that they do not differ from the ordinary tubercular kidney. They are cavernous, many giant cells are found upon section; and the pus contains T. B. Only one of these kidneys presented evidence of healing. It contained ancient and recent abscesses, zones of necrosis, and calcifications, and the blood vessels were considerably thickened. It is difficult to affirm that there actually existed a process of healing, because the malady had not lost its virulence and the patient died three months after operation, of miliary tuberculosis.

4. Of the 16 cases nephrectomized after the tuberculin treatment, four died rapidly of generalized tuberculosis; two died of tubercular meningitis after two months; two of general miliary tuberculosis in three months.

This formidable proportion of generalization is frightful. If the tuberculin treatment so frequently provokes such anaphylaxis, it risks of becoming itself a contra indication to surgical intervention.

5. Of the 51 recoveries attributed to the tuberculin many are not convincing.

(a)—In 24 cases actual proof was not presented;

(b)—In 27 cases the patients seemed cured, in the sense that they do not suffer, and their urines are clear, but in 16 of these the cure is of too short duration for affirmation that their condition is else than a temporary amelioration.

(c)—Eleven cases treated by tuberculin, are apparently cured after the lapse of one year; up to

the time of this report the survivors and the time of their cures were as follows:

13 months	1
15 months	1
18 months	2
2 years	4
3 years	1
4 years	1
5 years	1

The question still remains, are these cases permanently cured?

COMPARATIVE RESULTS OF SURGICAL, MEDICAL AND TUBFRCULIN TREATMENT.

Surgical treatment has proven its value—6% of operative mortality. If it does not cure all patients (18% late mortality), it cures at least one-half, and ameliorates one-quarter.

Medical treatment has proven its insufficiency; it retards, perhaps, the evolution of renal tuberculosis but it does not arrest it. The few known examples of cure that are attributed to it are apparently renal exclusions, the dangers of which are certainly more considerable than those of a nephrectomy (persisting dangers of generalization, action upon the opposite kidney, and recurrence in the diseased organ).

The tuberculin treatment has proven its powers of amelioration, but it has too rarely proven its curative effect. It authorizes a hope, always seductive, of cure without operation, and unfortunately but few have been realized. Encouragement might be given in certain cases, if certainty existed that, in case of failure, they would return for operation in a not more serious condition than previously.

The treatment of choice, then, actually is surgical. A general medical treatment should always be coincident.

As for the tuberculin treatment, it will perhaps render services after nephrectomy; before this if urgent, an attempt may be made in young subjects where the diagnosis of renal tuberculosis has been early, and before the advent of pyuria.

REPORT ON FOUR CASES OF VARYING TYPES OF ANEMIA.*

By E. H. CRABTREE, A. B., M. D., San Diego.

To the man of medicine, striving to attain to the greatest efficiency in the diagnosis and treatment of disease, anything that may aid his work is welcomed with ardor. In this age of specialization, it is impossible for the general practitioner to reach the finesse in the use of the various apparatus which are an aid in diagnosis, except by much careful study and application to detail. However, there are many things which the general profession often fails to grasp which should be seized with alacrity, and should be developed to the highest point of efficiency. Among these things, none to my mind is more important than the blood count, with special emphasis on the differential count of the white cells.

To the busy doctor, with an office full of patients each waiting his turn, it is so easy to make a "spot diagnosis," write out a prescription, collect a fee (sometimes?) and send the patient away with a few words of counsel.

In my short experience, I believe I have found nothing so frequently overlooked as the various anemias, each so typical in itself, and each responding to treatment just in proportion to the therapeutic measures directed at the specific trouble present. When a patient presents himself, complaining of some of the various symptoms dependent on insufficient blood, it is not doing justice to our profession to look at the lips, the conjunctiva, or perhaps the fingernails, order some form of iron to build up the blood, and feel that we have done our full duty. I do not consider it my province, before this body of men, many of whom are vastly my superiors in training and experience, to go into detail about the various causative factors of anemia, nor to attempt to classify the various types; for all this can be read at length in any of the text books and journals; but I am eager to take this opportunity to, in my meagre way, give the facts of four cases that have come under my observation within the past few months. Each of these, wholly different in type, I feel that I have benefited and I know that my practice has been greatly increased by the success that I had in one especially.

Case. I. Mr. K., a man of 43 years, came into my office in November, 1912. He complained of great lassitude, indigestion (?), palpitation of the heart, and some swelling about the ankles. His family history was absolutely negative. His former history was that of having been a strong, healthy man with very little sickness outside of the common children's diseases. His present trouble began in May, 1911, at which time he began to feel lazy. He thought he needed a rest and took a camping trip into the mountains. Here, instead of improving, he gradually grew worse, and began to lose his appetite. He returned home and consulted a physician for the first time. This physician listened to his symptoms, told him his "stomach was out of order" and prescribed a tonic. Not improving greatly, he consulted another doctor, who said it was his kidneys, when he heard about the swollen ankles. Thus he went the rounds, every one finding something different as a basis for his trouble. In December he came to me. He said he'd been to so many doctors, including an osteopath, who found a dislocated vertebra, a Christian Science practitioner who prayed for him, and a chiropractic who pounded him along the spine with a hammer, that he was willing to try most anything. As the man entered I noticed the peculiar waxy appearance, slightly tinged with yellow, with a peculiar flabbiness of the skin. His lips, gums and conjunctiva were bloodless. Physical examination showed very little except a soft blowing systolic murmur in the pulmonary space, not transmitted to the axilla or upward and greatly increased when the patient rose from the table quickly and lay down again. This I assured myself was a purely functional or hemic murmur. I then proposed a blood count and found all I wanted to know. The reds were 1,400,000, the hemoglobin 40% (Talquist). This was enough for a "spot diagnosis," the color index being much greater than one. There was marked poikylocytosis, the cells appearing in all sorts of fantastic shapes and forms with very few typical. Another prominent feature was the anisocytosis, many of the cells being minute microcytes, others nearer the normal size, while there were large numbers of macrocytes. The della was very irregular. There was much polychromasia, the cells taking the pe-

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